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(54) MANUFACTURE OF THIN FILM TRANSISTOR

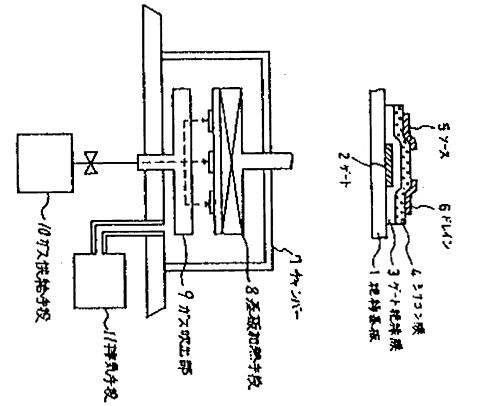
(57) Abstract:

operation characterized by high by thermal CVD of high-order silane mobility, by using a silicon film made PURPOSE: To perform stable

such as trisilane or higher as a channel semiconductor film of a thin film transistor.

on the surface of the substrate by a chamber 7; and the film 4 is formed 4 is formed as follows: the substrate and a metal film, are formed. An doublelayer structure of a P-or N-type and the like on the gate 2. A silicon film is laminated by a CVD method silicon oxide film and silicon nitride evaporation, sputtering and the like. substrate 1, a gate 2 comprising Ni, CONSTITUTION: On an insulating the substrate. thermal decomposition reaction on the trisilane or higher is introduced in 400°C; the high order silane such as is heated to a temperature of about transistor is formed. The silicon film inverted staggered type thin film A source 5 and a drain 6, which have trisilane or higher is formed by a film 4 of high-order silane such as A gate insulating film 3 such as a W, Mo and the like is formed by low resistance semiconductor film thermal CVD method on the film 3.

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